ABSTRACT OF THE DISCLOSURE

An induction heating device for inductively heating an object to be heated which is formed of conductive material has a holder. The holder is positioned outside the object. The device has an exciting coil for inductively heating the object. The exciting coil is supported by the holder. The exciting coil is composed of a plurality of turns of conductor forming a layer, which is positioned along the object. The device also has a demagnetizing coil which is positioned along the layer of the exciting coil. In the demagnetizing coil, a back electromotive force is induced in accordance with a magnetic field produced by the exciting coil, so as to cancel the magnetic field. Stability in the temperature control for the object such as a heating roller can be improved by effective function of the demagnetizing coil. The device can be miniaturized and configured at low cost.